

USDA Agricultural Marketing Service Pesticide Data Program Federal/State Meeting
May 2-4, 2017
Reynoldsburg, Ohio

Day 1: May 2, 2017

Welcoming Remarks

Dr. Ruihong Guo, Deputy Administrator, USDA Agricultural Marketing Service (AMS) Science & Technology (S&T), welcomed everyone to the meeting and facilitated individual introductions.

Special Guest Speakers

Dr. Beverly Byrum, Consumer Analytical Laboratory Director, Ohio Department of Agriculture (ODA), welcomed the attendees and introduced David Daniels, Director, ODA. Mr. Daniels gave an overview on the importance of agriculture to Ohio.

After Mr. Daniels' remarks, the attendees viewed a video presentation put together by ODA that showcased Ohio agriculture.

Jared Parko, Deputy Director, ODA, informed the attendees that ODA was established in 1846 and the Reynoldsburg location houses laboratories from ODA, the U.S. Environmental Protection Agency (EPA), Ohio EPA, and the Department of Health. The consolidation of locations allows for economy of scale. Mr. Parko also discussed Ohio's dairy industry and the move to robotic milking.

Dr. Gireshh Rajshekara, Ohio State University, gave a presentation titled "Foodborne Pathogen (Salmonella) Interaction with Tomato Plants and Identifying Novel Control Strategies."

PDP Administrative/Budget Issues

MPD Director, Diana Haynes, provided an overview of the agenda and discussed the PDP budget. Funding has been stable since Fiscal Year (FY) 2014. Despite the current budget climate, MPD is hopeful that funding for FY 2018 will be equivalent to FY 2016 and FY 2017.

Work to address the Government Accountability Office (GAO) 2012 Food Safety Audit is nearing completion. USDA's National Agricultural Statistics Service (NASS) is working on the final recommendation, a measure of error that includes sampling. Additionally, PDP is continuing work on the Blue Book project, to fully utilize this source for sampling volume information as well as for identifying potential new sampling sites to invite to the program.

The 2015 PDP Annual Summary was released on November 10, 2016 and printed copies were mailed mid-April 2017. All calendar year 2016 data has been received – thank you! Data reconciliation for the 2016 PDP Annual Summary is in progress and release of the Summary is anticipated in late 2017.

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MPD lab liaisons are:

California	Shanker Reddy	Ohio	Shanker Reddy
Florida	Sitra Abubeker	Texas	Jonathan Senn-Carter
Michigan	Sitra Abubeker	Washington	Jonathan Senn-Carter
New York	Chris Pappas	NSL	Shanker Reddy
Lab	Contact		

2017 lab reviews are scheduled for California, Florida, Michigan, and AMS' National Science Laboratory (NSL). Sampling reviews will be scheduled for Maryland and Ohio.

PDP held its first-ever Stakeholder Meeting September 15, 2016. Testimonials were provided by David J. Miller [EPA Health Effects Division (HED)], Dan Botts (Florida Fruit and Vegetable Association and Minor Crop Farmer Alliance), and Dr. Angela Klemens (DuPont and representing CropLife America). Mr. Miller stressed that PDP data have "directly impacted EPA regulatory exposure assessments and actions, providing a substantially more realistic view of real-world exposures" and "the Office of Pesticide Programs (OPP) looks forward to continuing the great relationship we have with PDP and its important contributions to our pesticide risk assessments." Mr. Botts and Dr. Klemens discussed the importance of PDP data to growers and industry and urged the expansion of PDP and thanked all participants for their great work.

Following the testimonials, there was a Q&A session. Some of the questions focused on PDP sampling and commodity coverage and others on testing and data use. The primary focus of feedback was that the program should continue to improve risk communication.

A brainstorming session was held at the 2016 Federal/State Meeting. MPD has made good progress on a number of identified areas including increased site appreciation and communications/relations and increased outreach. Some of the site relations activities include distributing plaques to sites participating in the program for 25 years, issuing Certificates of Appreciation to all sites (in progress), and revising the Site Invitation Letter and translating it into Spanish and Mandarin.

MPD is working to develop a Sampling Training Program. This will be the focus of a Breakout Session later during the meeting.

Areas still to be explored include: increasing pesticides/commodities tested, continuing to improve PDP conference calls, meeting with the Environmental Working Group, and exploring sampling/testing of new products including local/organics, herbs, marijuana, dietary supplements, and seafood.

Program Planning

Current commodities include:

- Fruits: applesauce, cranberries (fresh & frozen), grapefruit, pineapple (canned)
- Vegetables: cucumbers, kale, lettuce, onions, snap peas, sweet potatoes, tomatoes (canned)
- Bottled water, milk, and honey

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On April 1, 2017, honey testing began. Sample collection will span April – August 2017 for a total of 315 samples. Testing is being performed by the AMS NSL.

On June 30, 2017, cucumbers and lettuce will exit the program and will be replaced by asparagus and cabbage on July 1, 2017. Both commodities will be in the program for two years. All asparagus samples will be tested by the Washington laboratory; all cabbage samples will be tested by the Florida laboratory.

On September 30, 2017, the following commodities will exit the program: applesauce, tomatoes (canned), and grapefruit. On December 31, 2017, the following commodities will exit the program: bottled water, milk, onions, and pineapple (canned).

A number of potential new incoming commodities to replace the above were discussed with EPA and pared down to: garbanzo beans, hot peppers, mangoes, peaches (canned), plums (dried)/prunes, raisins, and wheat flour.

During and following this meeting, these commodity assignments were determined:

October 1, 2017:

Departing Commodity	Lab	Entering Commodity	Lab	Anticipated Time in Program
Applesauce	WA1	Dried plums/prunes	WA1	1 year
Canned tomatoes	NY1	Garbanzo beans	NY1	1 year
Grapefruit	CA1, TX1	Mangoes	CA1, TX1	1 year

January 1, 2018:

Departing Commodity	Lab	Entering Commodity	Lab	Anticipated Time in Program
Bottled water	NY1	Raisins	NY1	1 year
Canned pineapple	FL1, MI1	Canned peaches	MI1, NY1	1 year
Onions	FL1, NY1	Green onions ^a	FL1	1 year
Milk	CA1	Wheat flour	CA1	1 year

^a After the meeting, based on EPA input, it was decided that green onions would be the replacement commodity for bulb onions instead of hot peppers as discussed.

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Additional potential replacement commodities for later in 2018 include: collard greens (to replace kale), basil, cilantro, Brussels sprouts, kiwi, heavy cream, and corn meal or corn syrup.

Day 1 Afternoon session: EPA and FDA Update

David Hrdy, EPA Health Effects Division and Chris Sack, FDA gave an overview of activities in their respective agencies and the roles played by three Federal (USDA, FDA, and EPA) entities, State and local agencies, and contract laboratories along with laws to protect food from contamination. Mr. Hrdy mentioned that now that PDP is collecting and testing honey, EPA will evaluate the data to determine if a general tolerance level or exemption level is necessary. Mr. Sack covered FDA's residue programs (monitoring, special assignments, and total diet study) and noted how the differences in PDP and FDA programs complement each other.

PDP Sampling Program

Chris Pappas, MPD Sampling Manager, updated the attendees on sampling related issues. The availability of fresh/frozen cranberries was addressed. Mr. Pappas noted that through April, 83.7% of the targeted samples have been collected. He also noted that all of the April samples were frozen. In anticipation of possible frozen availability issues, canned whole cranberries, canned jellied cranberries, cranberry juice, and dried cranberries were discussed as alternatives. It was decided that MPD will continue to monitor availability; no changes will be made unless there are availability problems with fresh/frozen.

The requirement for PDP honey samples to be Grade A was discussed. Because grading is voluntary and does not necessarily reflect quality, it was decided that any honey sample is acceptable as long as the sample is 100% pure honey. A revised fact sheet was issued to reflect this change.

Information for the July replacement commodities (asparagus and cabbage) was presented. For asparagus, green, white, and purple varieties are acceptable. For cabbage, savoy, Napa, green, and red are acceptable. A minimum of two units is required for cabbage samples. Differences between Bok choy and Napa cabbage were covered.

Day 2, May 3, 2017

Accreditation of Sampling Programs – Gail Parker

Gail Parker, Florida Department of Agriculture and Consumer Services presented a synopsis of the State's investigation into accrediting its sampling operations to ISO 17025 requirements. Ms. Parker noted that Florida has decided that because the accreditation would be so limited (only PDP samples collected by Florida inspectors sent to the Florida laboratory), pursuing accreditation further would not be feasible. As a note, PDP will not be pursuing accreditation for sampling operations.

PDP Sampling Breakout Session

Chris Pappas, MPD Sampling Manager, led a PDP sampling program breakout session with the State Sampling Managers. The topic focused on the use of Blue Book services. A representative

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from Blue Book Services provided a webinar to the Sampling Managers on ways to search the listings for terminal markets and distribution centers and how to locate volume information. The use of credit score as a proxy for volume was also covered. The participants felt that the Blue Book subscription was worth continuing to identify potential new sites for recruitment and to spot-check volume information as available.

PDP Technical Breakout Session

Renee Schmauch, Quality Assurance Officer (QAO) ODA, gave an overview of the document control program called Q-Pulse. It is an electronic document database that assists in the creation, revision and tracking of numerous documents associated with PDP and the State programs. Q-Pulse's enhanced notification system has enabled the laboratory to increase efficiency, productivity, and reduce overhead costs associated with document management.

Sitra Abubeker, Chemist, MPD, and Diana Haynes, Director, MPD, led a technical breakout session with the Technical Program Managers (TPMs) and Quality Assurance Officers (QAOs). The topic of discussion was PDP-DATA Standard Operating Procedures (SOP) section 7.4.2.3, which states "relative abundances of diagnostic ions in the sample must agree to within +/- 20 % (Absolute) compared to ions in the comparison standard." There were two main suggestions presented: (1) adopt the SANCO criteria (now in the SANTE/11945/2015) of +/- 30% Relative to avoid having a tolerance of negative % ratio or keep the current criteria (+/- 20 % Absolute) and (2) add clarifying language stating retention time, 3x S/N, and ion ratio criteria all have to be met for target analyte confirmation. A consensus on revising the criteria however, was not reached. The participants instead have agreed to obtain guidance on the criteria at the North America Chemical Residue Workshop (NACRW) in July 2017. Based on the outcome from the NACRW, MPD will reconvene with the participants to make recommended changes to the SOP.

Mass Spectrometry (MS) User Groups were set up. The lead/lab for the four MS User Groups are: Dannis Tamplin, TX Lab for MassHunter (Agilent), Brittany Holmes, WA lab for MultiQuant (ABSCIEX), Roland Carlson, CA Lab for TraceFinder (Thermo) and Dave Grant, MI Lab for MassLynx (Waters). MPD will develop MS User Group objectives and deadlines.

NASS-PDP Sampling and GAO Audit Response

Franklin Duan, NASS, gave a presentation on PDP's statistical sampling frame and outlined the responsibilities for providing updated site information for the quarterly site selection.

Due dates for States to supply NASS with updated Master Site lists and changes to the selection process:

- 1st Quarter: December 1st (November 15th if there are changes)
- 2nd Quarter: February 15th (January 31st if there are changes)
- 3rd Quarter: June 1st (May 15th if there are changes)
- 4th Quarter: September 1st (August 15th if there are changes)

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Tim Keller covered NASS activities to address the GAO audit and develop methodology to evaluate PDP estimates. Mr. Keller reported that in conjunction with EPA, 10 pesticide commodity pairs were selected for the project. They include:

1. Apples – Diphenylamine (DPA)
2. Bananas – Thiabendazole
3. Beans – Acephate
4. Broccoli – Imidacloprid
5. Cantaloupe – Endosulfan sulfate
6. Lettuce – Imidacloprid
7. Peaches – Iprodione
8. Pears – Pyrimethanil
9. Peppers – Imidacloprid
10. Potatoes – Chlorpropham

Challenges in Residue Analysis of Dicamba and its Metabolites in Vegetation and Soil

Thuy Nguyen, Director, EPA Analytical Chemistry Laboratory, presented her results on the residue analysis of Dicamba and its metabolite (5-OH Dicamba) and 3,6 dichlorosalicylic acid (DCSA) in vegetation and soil. The laboratory conducted a liquid chromatography (LC)/MS/MS method that was adopted by several State and Federal laboratories. This study resulted in average spike recoveries for Dicamba but low recoveries for its metabolite 5-OH Dicamba, particularly in soil. A new method was explored and successfully developed with the high resolution (HR)-MS, yielding lower detection limits and excellent recoveries. The method, however, is specific to HRMS. The lab is currently looking for recommendation from the States on the feasibility of the method on LC/MS/MS systems, along with improvements on the recovery of 5-OH Dicamba in soil.

CLA-DAWG Activities

Dr. Carrie Fleming presented an update on CropLife America's Dietary Assessment Working Group (DAWG) domestic and international activities. Based on the previous 2007 and 2008 PDP honey data, CLA-DAWG and CLA-Residue Experts Working Group (REWG) are developing a pragmatic approach for residue levels in honey. PDP data generally supports a 0.1 ppm threshold Maximum Residue Level (MRL) or No Action Level. Dr. Fleming expressed CLA's appreciation that PDP honey data will be refreshed this year. Dr. Fleming provided an overview of current Codex risk assessment activities. Codex is revising the International Estimated Short-Term Intake (IESTI) equation for acute exposure to include the MRL. The revised equation results in overestimates of exposure and there is a continuing conversation on this potential revision. PDP data will be used to assist in reviewing the potential impact of revisions to the IESTI equation. Dr. Fleming stressed the fact that an MRL is a legal limit, not a safety limit.

Remote Data Entry, Extranet, and Database Search Application

Roger Fry (Database Manager, MPD) gave a presentation on the Remote Data Entry (RDE) system. MPD is currently developing a local/distributed RDE system that will be installed at each lab to replace the legacy Web-RDE system. The local RDE system will have similar layout and navigation features as the current Web-RDE system and will enable work to continue when USDA

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Internet access is down. The target completion date for the new, local RDE system is February 2018. The target retirement date for the Web-RDE system is April 2018.

A demo was given of the local/distributed RDE system that is currently in development. MPD will send text files holding e-SIF records and look-up table updates to the lab for import into the local RDE system. Signed-off sets will be transferred by e-mail in a separate, zipped database file. If MS-Outlook is running on the local computer, the e-mail transfer will be done automatically.

Some samplers have not upgraded to the RDE e-SIF V5.0 software that was distributed in October 2016. In the last month, 12 of the 76 samplers that submitted e-SIFs were still using the old V4.1 software. This slows the data review process at the receiving labs because some of the sample identity information is stored in different fields based on which version was used to enter the SIF. The upgrade to V5.0 can be done easily by simply replacing 3 files. A deadline of July 1, 2017 was established for the required upgrade to RDE e-SIF V5.0 for all State samplers.

The PDP Extranet Site requires individual user IDs and passwords that have to be re-set every 90 days. Users can re-set their own password ahead of the 90-day expiration using a function on the main PDP Extranet page. The number of days left before expiration is shown at the bottom of that screen. MPD staff must request account/password re-sets if users are locked-out. The temporary password provided during the re-set action cannot be changed for the next 24 hours. A picture library has been established on the Extranet site to hold shared meeting and family photos uploaded by program participants.

A demo was given of the new Web-based PDP Database Search application that can be launched from any page on the public PDP Website. The app allows a user to select one or more commodity, pesticide, and survey year and then select one of five output dataset formats, including individual results or residue distribution summaries. The resulting data can be exported to an Excel/CSV file.

Day 3, May 4, 2017

Tolerance Table Update

A new tolerance table was issued on January 3, 2017 that included commodities newly introduced into the program. The values are from the e-CFR and laboratories should notify MPD of any discrepancies. The next revision is scheduled to be released in July 2017.

NARA Update

A slight change in the archival process, which does not affect the States, is in effect. USDA has moved to a new electronic archival and retrieval process, which will be facilitated by MPD. States are requested to continue to submit SF-135 forms to MPD via email.

PDP Sampling Breakout Session

The group decided to develop a Train-the-Trainer Manual as a training tool. This will be a long-term project. The first objective will be to develop an outline and then pick several items to begin this year (e.g., work instructions on how to fill out a sampling label, video clips for packaging

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samples). MPD is responsible for drafting an outline and sending it to the Sampling Managers for review and editing.

Sampling resources will be updated on the Extranet. MPD will upload two sampling training PowerPoint presentations that have been developed as well as the new information provided by Florida and New York.

PDP Technical Breakout Session

Gail Parker, Quality Assurance Officer (QAO), Florida, presented updates from the annual A2LA meeting. She discussed updates to the A2LA's P113 policy and indicated that a task group had formed to update the Equipment Appendix in P113. New developments and revisions to ISO 17025 are also anticipated by the end of 2017 or 2018. Transition of the labs to this requirement will be within three years from the time the last accreditation certificates were issued to the laboratory. ISO 17025:DIS is available for purchase at [HYPERLINK "<http://www.iso.org/>"].

Tiffany Tu, TPM, California Department of Food and Agriculture (CDFA) presented on California's Food Safety Program, which consists of the State and the PDP. The laboratory currently screens over 450 pesticides and shares the cost of standards between the two programs. Ms. Tu indicated that the instrument utilized in the laboratory is capable of handling much larger screens but emphasized the challenges associated with large screens, such as the numerous standard checks, validations, spikes, and the large amount of data processing and review that are required, as well as the cost of reference standards. CA-PDP meets some of those challenges by sharing the cost of standards with the State programs and utilizing software-assisted data processing and review to help analysts assess the data. Ms. Tu also demonstrated how CA-PDP determines the analyte's ion ratio and how it is set up in the batch analytical method.

SOP Revisions

Sitra Abubeker, MPD Chemist, provided an update on the FY 17 SOP revision schedule. The SOPs that have already been revised include, QC in February 2017, DATA in April 2017, and ADMIN in May 2017. PDP-LABOP will be revised in July 2017. Requests for changes to SOPs may be submitted at any time by sending an email to Ms. Abubeker.

Proficiency Testing Program

Results for Proficiency Testing (PT) Round #235, Multiresidue Testing of Zucchini, issued by the California Department of Food and Agriculture (CDFA) Quality Assurance Unit (QAU) and Round #236, Multiresidue Testing of Apples, issued by FAPAS were presented.

For PT #235, all laboratories reported all spiked compounds with six exceptions where the laboratory did not include that analyte in their screening profile and was therefore not held responsible for testing that compound. The overall mean recovery was 90% while the percent coefficient of variation was 18.

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For PT #236, all laboratories reported all compounds currently included in their screening profiles. TNFA, a metabolite of flonicamid, was spiked by FAPAS, but is not included in PDP testing profiles. With one exception, the z-scores and percent recoveries fell within the PDP criteria.

For FY 2017, one round remains – PT #237, Multiresidue Testing of Nectarines, to be issued by the CDFA QAU on July 12, 2017.

The PT schedule for FY 2018 will consist of:

- A vegetable round to be issued by the CDFA QAU in October, 2017,
- A FAPAS round of potatoes to be issued in February 2018, and
- A fruit round to be issued by the CDFA QAU in Spring 2018.

The FY 2018 PT schedule will be distributed and posted to the Extranet once the commodities to be tested and shipment dates have been finalized with the CDFA QAU.

Committee Elections

Ken McManus (MD) and Sarva Gunjur (CA) were presented with Certificates of Appreciation for their service during FY 2017 as Presiding Members of the Sampling Advisory Group (SAG) and Technical Advisory Group (TAG), respectively. Nathan Chambers (WA) was elected to the SAG, joining Saeed Akhtar (NY) and Don Gallegos (CO). Hugh Robinson (TX) and Gail Parker (FL) were elected as new members of the TAG, joining Karen Stephani (NY). Saeed Akhtar will serve as Presiding Member of the SAG, while Karen Stephani will serve as Presiding Member of the TAG.

Meeting Wrap Up

Wrap-up slides were presented and the meeting was adjourned for a tour of the Ohio Department of Agriculture laboratory.